

## CLAIMS

1. An instrument for removing and/or collecting flakes or shavings from bone by scraping, comprising a handle carrying a scraper blade (50) positioned at its front end, and possessing in its front end portion a  
5 collection chamber (R) for the removed material,  
characterised in that the handle comprises:  
an elongate inner element (20), having at least a front portion (21) with a cylindrical surface,  
a tubular outer casing (30) which encloses the inner element (20) about its  
10 entire perimeter and adheres to the outer surface of its front portion (21),  
a longitudinal rod (40) having a cross-section less than the cross-section of the collection chamber (R) to extend longitudinally along and within the chamber, its rear end being fixed to the inner element (20),  
the scraper blade (50) being fixed to the front end of the longitudinal rod  
15 (40).
2. An instrument as claimed in claim 1, characterised in that said outer casing (30) is slidable in a longitudinal direction relative to the inner element (20) between a front position in which its front end portion (31) projects forwards longitudinally to a maximum extent from the front portion  
20 (21) of the inner element (20), to define said collection chamber (R), and a rear position in which the outer casing (30) is displaced rearwards to project from the inner element to a lesser extent than in the front position, the collection chamber (R) being at least partly open.
3. An instrument as claimed in claim 1, characterised in that the  
25 scraper blade (50) and the longitudinal rod (40) are independent of the outer casing (30), at least part of the rod (40) being spaced in a radial

direction from the inner surface of the outer casing (30) so that it can flex towards said surface in a radial direction when the blade (50), when in use, is urged against the bone in a radial direction.

4. An instrument as claimed in claim 3, characterised in that the  
5 longitudinal rod (40) is of such dimensions and shape, in relation to its composition material, as to make it elastically deformable so that it moves in a direction radial to the front edge of the outer casing (30) when the blade (50), when in use, is urged against the bone in a radial direction.

5. An instrument as claimed in claim 1, characterised in that the rear  
10 face (53) of the blade (50) closes the front end of the collection chamber (R) by adhering to the edge of the front end portion (31) of the casing (30), the edge of the front end portion (31) possessing at the blade scraping edge (51) a part (31a) lying at an axial distance from the scraping edge (51) to define, in combination with the rear face (53) of the scraping edge  
15 (51), a narrow slit (F) enabling the bone flakes or shavings to pass to the collection chamber (R).

6. An instrument as claimed in claim 1, characterised in that the scraper blade (50) has a maximum outer dimension substantially equal to the cross-section of the front end portion (31) of the outer casing (30) and  
20 is disposed out of alignment therewith so that its scraping edge (51) projects slightly outwards radially beyond the outer profile of the front end portion (31) of the outer casing (30).

7. An instrument as claimed in claim 5, characterised in that the longitudinal rod (40) is joined to the inner element (20) along the axis  
25 thereof and is slightly inclined to that axis so that its front end, and with it

the blade (50), are out of alignment with the front end portion (31) of the outer casing (30).

8 An instrument as claimed in claim 1, characterised in that the inner element (20) has a cylindrical surface and a constant circular cross-  
5 section at at least the front portion (21), the casing 30 likewise having a constant circular cross-section

9. An instrument as claimed in claim 1, characterised in that the scraper blade (50) is of mushroom shape having a slightly pointed front portion (52) and, fixed to the longitudinal rod (40), a relatively thin shank  
10 (54) joined to rear face (53) of the front portion, said rear face (53) being flat or virtually flat, its lower portion forming a cutting edge (51) for scraping the bone.

10. An instrument as claimed in claim 1, characterised in that the longitudinal rod (40) consists of an internally empty thin cannula, the rear  
15 end portion of which is fixed axially by insertion into a seat (22) provided in the front end portion (21) of the inner element (20), the scraper blade (50) comprising a shank (54) which is fixed by forced insertion into the front end portion of the cannula.

11. An instrument as claimed in claim 1, characterised in that the  
20 handle comprises a rear handgrip (10), to which the inner element (20) is joined and which remains open with respect to the outer casing (30), to be gripped by the hand in order to slide the outer casing (30) relative to the inner element (20).

12. An instrument as claimed in claim 1, characterised in that the casing  
25 (30) is of constant cross-section with a profile in the form of a circle cut along at least one flat side (35a), at least the front portion (21) of the inner

element (20) having an identical profile to adhere to the inner surface of the outer casing (30), said flat said (35a) being disposed in correspondence with the scraping edge (51).

13. An instrument as claimed in claim 9, characterised in that the front  
5 portion (52) of the blade (50) is overall of approximately conical or cap shape having, at the scraping edge (51), a lower region (55a) cut as a flat or slightly concave surface with generators inclined to the blade axis A, the scraping edge (51) being defined by the intersection between said lower region (55a) and the rear face (53) of the blade.

10 14. An instrument as claimed in claim 9, characterised in that the front portion (52) of the blade (50) possesses, opposite the scraping edge (51), a flat upper face (55b) to rest against a corresponding seat (47) provided on the front end portion (45) of the rod (40).

15 15. An instrument as claimed in claim 3, characterised in that the longitudinal rod (40) is disposed with its rear portion adhering to the inner surface of the outer casing (30), its front end portion being positioned at a distance, in the radial direction, from said inner surface so that it can flex in a radial direction towards it when, while in use, the blade (50) is urged against the bone in a radial direction.

20 16. An instrument as claimed in claim 13, characterised in that the cross-section of the rod (40) is of overall curved shape, bounded by a convex surface adhering to the inner surface of the outer casing (30) and by a concave surface facing the collection chamber R.